#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004755 Address: 333 Burma Road **Date Inspected:** 06-Nov-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 1400 **Project Name:** SAS Superstructure **OSM Departure Time:** 2300 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China

**CWI Name:** Sun Bo **CWI Present:** Yes No Yes **Inspected CWI report:** N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Tower/ OBG

#### **Summary of Items Observed:**

89M mock up

Caltrans QA Inspector observed that ZPMC did not perform the weld trial on this shift today due to inclement weather conditions. It was noted that on a previous shift ZPMC had fit-up 2 fit lug plates on the MUB-MA21-G/J side of the 89M mock-up the plates were located on the left hand side of the mock up with the size of the lug plates were 75X370X30mm. See digital photos below for locations of fit lugs.

Bay 4 9M diaphragm bolting

OBG Bay 4

This QA inspector received notification from ZPMC for ABF green tagging of SSD1-lift 1 9M diaphragm. Upon arrival at this location it was noted that this diaphragm had bolted connections (Approx. 350 to 400 bolts) that required A325 high strength bolts. During the observation it was noted that ZPMC had temporary bolts installed and had not changed the temporary bolts for the A325 bolts prior to welding or inspection for green tagging. This QA inspector contacted the Caltrans SMR for the tower segments and explained to him the circumstances of the green tagging with the temporary bolting. It was relayed that for the green tagging we (Caltrans) needs to be sure that the component is completed with welding and bolting when required as per this component before we green tag per ABF's system. This information was relayed to ABF and ZPMC personnel and ABF stated that they would talk to the Caltrans SMR tomorrow morning concerning this issue. The component was not green tagged due to this issue.

Tower Shop Bay 3 Deck Panel repairs

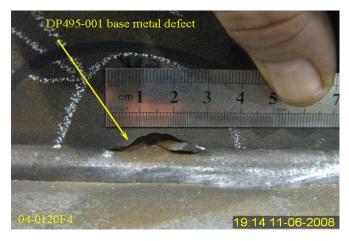
The QA Inspector randomly observed ZPMC personnel performing grinding of repairs for the Orthotropic Box Girder (OBG) deck panel Partial Joint Penetration (PJP) welds. During initial observations it was noted that

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approximately ten (10 ea) deck panels are inside the shop. ZPMC was in process with grinding of repairs on four (4) deck panels listed as DP328-002, DP436-001, DP490-001 and DP382-001 ZPMC was working on these for the remainder of the shift. This QA inspector along with ZPMC and ABF personnel performed the 3 party initial visual inspections for 3 deck panels. All 3 parties agreed on the repair areas and signed the yellow ABF tracking tag affixed to the deck panel. The deck panels inspected were DP493-001, DP495-001 and DP088-001. This QA inspector was notified of final MT verification for 3 deck panels after ZPMC had performed and accepted these components. The following are deck panels that the 10% MT verification was performed; DP409-001, DP274-001 and DP139-001. At the time of the QA review the components appeared to be within compliance. This QA inspector noted that during the initial VT for deck panel DP495-001 weld number 001 at "Y" location 4205mm a base metal repair is required due a base metal defect that appears to be from the rolling process. The size of the defect is 29mm long X 5mm deep X 7mm height. ZPMC had written on the U-Rib for this area to be a CWR. Certified Welding Inspector for ZPMC Sun Bo was present at this location for the monitoring of the deck repairs and inspection. Also noted in bay 3 to monitor deck panel repairs were ABF personnel Wang Zhong Yuan and Ding Bao Hua.









### **Summary of Conversations:**

As noted above.

**Comments** 

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Josh Ishibashi, 1-376-471-0411, who represents the Office of Structural Materials for your project.

Inspected By:	Riley,Ken	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer